

Forces that Influence Trust in Technology in the Middle East: Culture, Politics and History

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ABSTRACT

In this paper, we discuss the forces that impede trust and consequently limit the adoption of technology in Middle-Eastern countries. We identify and discuss three primary forces: cultural, governmental and historical. Our discussions are based on our research experiences within the domain and the region.

Categories and Subject Descriptors

H.1.2 User/Machine Systems, *Human factors*.

General Terms

Design, Economics, Human Factors.

Keywords

Technology, trust, Middle-East.

1. INTRODUCTION

There is an increasing awareness of the need to address issues that impede the adoption of technology in parts of the world that exist in the peripheral due to economical limitations or other barriers. We use the term *technology* to refer to all types of software and their hardware hosts in our exploration of impediments that can constrain the adoption of Global North technology in one region in particular- the Middle-East.

This Middle-East consists of 22 countries that share a common language (Arabic) and similar customs. The region is unique in that it does not suffer the same economical limitations (e.g. poverty) that generally constrain the development of other regions in the Global South. However, its economical strength is not generally reflected in the widespread adoption of technology. We suggest that the limited adoption of technology can be attributed to the lack of trust. There are several forces that can influence indigenous trust in technology developed by the Global North; we discuss three forces in this paper, namely: cultural, regional

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politics and historical residue.

2. TRUST AND TECHNOLOGY

Trust can be defined, in general terms, as being a firm reliance on the integrity, ability, or character of a person or thing [4]. Trust typically grows exponentially with shared experience, shared friends, and interactions (among others) over a period of time. Consequently, we present our discussions within the context of the regional internal and external interactions. We are interested in both sides of the equation; both the typical Middle-Eastern view of Global North technology and the general Global North perspective of the Middle-Eastern consumer and regional culture.

Our discussions are based on both authors' combined research experiences. Redmiles has (25 years) experience in the field of HCI and communities of practice, as a practitioner and researcher. Furthermore, Al-Ani has (20 years) experience in Iraq and the Middle-East in addition to her experiences within the Iraqi and Arab communities in three countries in the Global North (England, Australia and the U.S.). The focus of our discussions will be on the impediments to adopting technology for personal use rather than organizational or governmental use. The purpose of this discussion is to provide an unobstructed view an Arab typically has of Global North technology and the constraints usually faced by people within the region. Furthermore, we seek to highlight misconceptions some Global North developers may have of the Middle-Eastern user.

2.1 Cultural Impediments

In general, notions of privacy and trust are rooted in cultural practices [3]. Culture particularly influences people in the Middle-East in general and governs their trust and possible acceptance of new technologies overall [2]. The advent of technology can be perceived as a threat to the values that are core to the culture in which they exist and lead to the rejection of the new technology as a result. We have identified two principle cultural manifestations that can impede the adoption of technology within the region, namely: age concepts and collectivism.

Rapid developments in technology (especially the internet) have left the older generation struggling to come to terms with this relatively young technology. This is relevant when viewed within the context of the regional *age concepts*, where the older generation holds the greater power and the younger generation typically defers to their wisdom [7]. The a regional age concept within the familial home is of particular importance because it is where individuals typically reside until they marry and many do

not leave even then. The younger generation will remain deferential to their elders even when not living in the familial home. One strategy that can increase the adoption of technology is to gain the older generation's trust. It may not lead to their adoption of the technology themselves but they may encourage and financially support its adoption by others within the household. Consequently, such a strategy can lead to easier access to target consumers.

Middle-Eastern cultural values revolve around family ties (*collectivism* as opposed to *individualism*). People typically interact with those within their circle and are only included in a circle when formally introduced. A new technology has to overcome the "strangers in our midst" factor. A personal recommendation from an accepted and trusted person or figure within the community can lead people to adopt new technology more readily and can minimize the uncertainty-avoidance factor

We find that these are some of the factors that determine cultural acceptance of new technology on the one hand but also found evidence that the Global North still has a poor understanding of this culture despite the abundance in literature [1]. Some developers rely on a Western emotional model on the one hand but then go on to base their assumptions on stereo-types of women of the region [6]. This general branding of all women in the region is flawed as is most stereo-typing is.

2.2 Governmental Impediments

New technologies typically enable the sharing, storage and easy access to information and knowledge. Consequently, its users can be empowered, if the new technology can be trusted. The type of governments in power in different countries within the Middle-Eastern region strongly influences the level of trust, namely 1) trust its people have regarding the new technologies, 2) the local government has towards the Global North and finally 3) the Global North has on the use of technology within that region.

There is a sense that the governments, in the Middle-East, typically control all aspects of life including the technology that enters the country. People do not trust the government not to utilize technology to spy on them and control them [2]. The ability to readily include undetectable spy-ware on personal technologies and the strict regulation of access to online systems has typically limited the trust people of this region have for technology that their government does allow access to.

On a more abstract level, Middle-Eastern governments can limit the import of technologies developed by the Global North because they do not trust these countries not to sell them spy-ware infested technology. The fact that Syria has only recently allowed Internet cafes to be opened in its capital is another example of how technology is linked to local government trust of the Global North.

Conversely, while Global North vendors may view the Middle-East as an invaluable business opportunity several Global North governments are reluctant to empower Middle-Eastern countries. These Global North governments have consequently placed restrictions on the sale of technologies in addition to enforcing long term embargos on several of the countries within the Middle-East. These factors are compounded by the lack of trust some

vendors have of the Middle-Eastern governments' enforcement of copyright laws.

2.3 Historical Impediments

The occupation of the Middle-East of by the forces of one empire after another (e.g. Ottoman, French, British) in the past led these forces to draining the region of its natural resources. It also led to an almost none-existent re-investment in education, training or credible infra-structure leading to a long period of isolation from technological developments [5].

Conversely, more recent historical events carried out by individuals predominately from the Middle-East in the Global North have led to a negative view of the region's use of technology. This in turn has led to a greater focus on funding opportunities to develop technologies to control the region rather than support the everyday use of technologies by its people. This new development can lead to a new kind of occupation imposed not by physically occupying opposing regions in the Middle-East but a kind of virtual occupation and control through technology.

3. CONCLUDING REMARKS

In this paper, we discuss one of the most pertinent factors that limit adoption of technology in the Middle-East- trust. We suggest there are three forces that influence trust in the region, namely: cultural, governmental and historical. The lack of trust on so many levels can lead to limited technology adoption within this region.

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